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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,747	12/28/2001	Guy L. Steele JR.	06502.0364	3637
7590 11/15/2004 Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			EXAMINER MAI, TAN V	
			ART UNIT 2124	PAPER NUMBER

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Best Available Copy

**Office Action Summary**

Application No.

10/035,747

Applicant(s)

STEELE, GUY L.

Examiner

Tan V Mai

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/6/02, 11/19/02, 1/15/03 & 4/26/02.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/6/02, 11/19/02 & 1/15/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The abstract of the disclosure is objected to because legal phraseology is used in this paragraph (i.e., "comprises"). Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

In the specification, pages 28 and 58; the status of Co-pending Application(s)

Serial No. \_\_\_\_\_ is required to be kept current.

Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 21-31 and 33-54 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Huang et al (Applicant's admission Prior Art).

As per independent claims 1-4, Huang et al teach, e.g., see **Fig. 4**, the invention, **arithmetic calculation circuit (100)**, including: **X and Y operand registers 116 & 118; arithmetic section 114; memory (register file) 112; and special operand generator 122**. Each operand register (X or Y) has a first portion (116-1, 118-1) and second portion (116-2, 118-2).

As per dependent claim 5, the claims add the detail "status". The second portion (116-2, 118-2) is considered the claimed feature.

Due to the similarity of claims 21-31 and 33-54 to claims 1-5, they are rejected under a similar rationale.

5. Claims 1-5, 21-31 and 33-54 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lynch et al (Applicant's admission Prior Art).

As per independent claims 1-4, Lynch et al teach, e.g., see **Fig. 4**, the invention, **floating point unit (36)**, including: **Register Stack (84) and FPU Core (94), FPU Core (94), FPU control (92), Assembly Queue (80)**. The Register Stack (84) has a first portion (87) and second portion (89).

As per dependent claim 5, the claims add the detail "status". The second portion (89) is considered the claimed feature.

Due to the similarity of claims 21-31 and 33-54 to claims 1-5, they are rejected under a similar rationale.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-20 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al (Applicant's admission Prior Art).

Huang et al have been discussed in paragraph 4 above.

As per dependent claims 6-15, the claims add the detail "formats", "flags", "status". These features are well known formats in the special floating point number.

As per claims 16-20, the claims are similarly to claims 1-15 except the independent claim 16 adds the "floating point operand data" having "sign", "exponent" and "fraction" information. Huang et al's device is a floating point device.

As per dependent claim 32, the claim adds an "additional function processing unit". The feature is obvious to a person having ordinary skill in the art to use Huang et al's device in a system.

8. Claims 6-20 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch et al (Applicant's admission Prior Art).

Lynch et al have been discussed in paragraph 5 above.

As per dependent claims 6-15, the claims add the detail "formats", "flags", "status". These features are well known formats in the special floating point number.

As per claims 16-20, the claims are similarly to claims 1-15 except the independent claim 16 adds the "floating point operand data" having "sign", "exponent" and "fraction" information. Lynch et al's device is a floating point device.

As per dependent claim 32, the claim adds an "additional function processing unit". The feature is obvious to a person having ordinary skill in the art to use Lynch et al's device in a system.

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (703) 305-9761. The examiner can normally be reached on Tue-Fri from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is:

Official (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



TAN V. MAI  
PRIMARY EXAMINER